AMENDMENTS TO THE CLAIMS

1. (Original) A power supply system comprising:

a plurality of cascading power units arranged in parallel;

a connection interface between said plurality of cascading power units and an electronic load, wherein said connection interface prevents current from entering one of said plurality of cascading power units from another of said plurality; and

wherein each one of said plurality of cascading power units has a maximum effective output voltage greater than a next one of said plurality.

2. (Original) The power supply system of claim 1 further comprising:

selection impedance within said connection interface for setting said maximum effective output voltage for each of said plurality of cascading power units.

3. (Original) The power supply system of claim 1 wherein said connection interface is disposed within said electronic load.

4. (Currently Amended) The power supply system of claim 1 further comprising:

a selecting ~~latching~~ component for limiting said maximum effective output voltage of said each one of said plurality of cascading power units to said maximum effective output voltage of said next one of said plurality when a power requirement of said electronic load causes said maximum effective output voltage of said each one of said plurality to reduce to said maximum effective output voltage of said next one of said plurality.

5. (Currently Amended) The power supply system of claim 4 further comprising:

a ~~latch~~ disable mechanism operable responsive to a signal external to said plurality of cascading power units to deactivate said ~~latching~~ selecting component.

6. (Original) The power supply system of claim 5 wherein said signal is transmitted responsive to one or more of:

expiration of a timer;

reduction in said power requirement of said electronic load; and

a user selected option.

7. (Original) A method for supplying power to an electronic load comprising:

connecting a plurality of power supplies in parallel;

setting a maximum effective voltage for each of said plurality of power supplies to cascade from a highest effective voltage for a first of said plurality to a lowest effective voltage for a last of said plurality; and

interfacing said plurality of power supplies with said electronic load through an isolation interface.

8. (Original) The method of claim 7 wherein said interfacing further comprises:

preventing current generated by one of said plurality of power supplies from sinking into another of said plurality.

9. (Original) The method of claim 7 wherein said setting further comprises:

selecting impedance values within said isolation interface to create said maximum effective voltage.

10. (Original) The method of claim 7 further comprising:

limiting said maximum effective voltage of one of said plurality of power supplies to a value of a next one of said plurality when said electronic load causes said maximum effective voltage of said one of said plurality to decrease to said maximum effective voltage of said next one of said plurality.

11. (Original) The method of claim 10 further comprising:

receiving a signal to deactivate said limiting; and

deactivating said limiting.

12. (Original) A power module for supplying power to a load, said power module comprising:

a plurality of power supplies connected in parallel, wherein each one of said plurality is selected to have a maximum output voltage greater than a next one of said plurality; and

a connection interface for connecting said power module to an isolation circuit of said load, wherein said isolation circuit prevents current from one of said plurality of power supplies to sink into another of said plurality of power supplies.

13. (Currently Amended) The power module of claim 12 further comprising:

a selector system ~~latch circuit~~ operable to limit at least one of said plurality of power sources to said maximum output voltage of said next one of said plurality when a power requirement of said load causes a droop in said maximum output voltage of said at least one of said plurality or power sources to a level of said next one of said plurality.

14. (Currently Amended) The power module of claim 13 further comprising:

a ~~latch~~ reset for disabling said selector system ~~latch circuit~~.

15. (Currently Amended) The power module of claim 14 wherein said ~~latch~~ reset is activated by a timer.